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LEATHER:  
Publications by Members of the Staff of  
the National Bureau of Standards

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I. INTRODUCTION

This Letter Circular lists the publications on leather by members of the staff of the National Bureau of Standards and includes a list of Federal Specifications for leather and leather products. Some of the publications in this list have appeared in the regular series of publications of this Bureau and others in various scientific and technical journals and books. Copies can

usually be consulted at the leading libraries of large cities.

For ready reference and convenience in ordering the separate papers of the Bureau, these have been listed with the serial designation in one column and the price in the second column. Those marked "OP" are out of print, but may be consulted in the libraries as stated above. A complete list of National Bureau of Standards publications on all subjects (Circular C24 with 3 Supplements and Circular C460) is also generally available at such libraries.

Many of the publications listed are government publications, available only from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at the prices listed. They are not generally available from the National Bureau of Standards. The prices quoted are for delivery to addresses in the United States and its territories and possessions and in certain foreign countries which extend the franking privilege. In the case of all other countries, one-third the cost of the publication should be added to cover postage.

For papers and publications not printed by the Government, the name of the journal or of the organization publishing the article is given in abbreviated form, with the volume number (underscored), page and year of publication in the order named. Information regarding their availability and price can be obtained only from the publisher or organization sponsoring the publication. Reprints of these articles are not available from the Government Printing Office nor from the National Bureau of Standards with the exception of those marked with an asterisk which may be secured without charge (until the supply is exhausted) by addressing the Leather Section, National Bureau of Standards, Washington 25, D. C.

C The National Bureau of Standards publications are issued in groups with different series designations. Each publication is readily identified by a letter indicating the series followed by a number indicating the particular publication. The letter designations used here are as follows:

C - "Circular" of the National Bureau of Standards. Circulars are compilations of information on various subjects related to the Bureau's scientific, technical, and engineering activities.

LC - "Letter Circular" of the National Bureau of Standards. These publications are mimeographed, not printed like the others. This series is the only one for which requests should be sent directly to the National Bureau of Standards. No charge is made for these publications.

RP - "Research Paper". These are reprints of articles appearing in the "Bureau of Standards Journal of Research" and the "Journal of Research of the National Bureau of Standards", the latter being the title of this periodical since July 1934 (volume 13, number 1).

T - "Technologic Paper" T1 to T370. This series was superseded by the "Bureau of Standards Journal of Research" in 1928.

\* - Reprints of articles followed by an asterisk may be secured without charge (until the supply is exhausted) by addressing the Leather Section, National Bureau of Standards, Washington 25, D. C.

## II. LIST OF PUBLICATIONS

### 1. CHEMICAL AND PHYSICAL PROPERTIES OF LEATHER

	<u>Series</u>	<u>Price</u>
(1) Deterioration of leather under optimum mildew-growing conditions. Joseph R. Kanagy, Robert E. Seebold, Arbelia M. Charles, James M. Cassel. J. Am. Leather Chem. Assn. to be published soon.		
(2) Penetration of leather by water under dynamic conditions. Charles E. Weir, Josephus Carter, Joseph R. Kanagy, Sanford B. Newman. J. Am. Leather Chem. Assn. <u>43</u> , 69 (1948)*		
(3) Adsorption of water vapor by untanned hide and various leathers at 100 degrees F. Joseph R. Kanagy. J. Res. NBS <u>38</u> , 119 (1947). J. Am. Leather Chem. Assn. <u>42</u> , 98 (1947)*	RP1763	10c
(4) Effect of mildew on vegetable-tanned strap leather. Joseph R. Kanagy, Arbelia M. Charles, Edward Abrams, Rees F. Tener. J. Research NBS <u>36</u> , 441 (1946) J. Am. Leather Chem. Assn. <u>41</u> , 198 (1946)*	RP1713	5c
(5) A study of specifications for chrome-tanned hydraulic-packing leather. Robert B. Hobbs. J. Am. Leather Chem. Assn. <u>41</u> , 573 (1946)*		
(6) Compression of sole leather. Charles E. Weir. J. Research NBS <u>35</u> , 257 (1945) J. Am. Leather Chem. Assn. <u>40</u> , 403 (1945)*	RP1672	5c

	<u>Series</u>	<u>Price</u>
(7) Density of leather and its significance. Joseph R. Kanagy and Everett L. Wallace. J. Research NBS <u>31</u> , 169 (1943) J. Am. Leather Chem. Assn. <u>38</u> , 314 (1943)*	RP1556	5c
(8) Some physical and chemical tests of belting leather. Robert B. Hobbs and Philip E. Tobias. J. Am. Leather Chem. Assn. <u>37</u> , 131 (1942)*		
(9) Performance tests for leather. Everett L. Wallace, Hide and Leather and Shoes. Vol. 102, No. 3 (July 19, 1941).		
(10) Shrinkage temperature of leather. Robert B. Hobbs. J. Am. Leather Chem. Assn. <u>35</u> , 272 (1940)*		
(11) Note on the evaluation of leather by means of the X-ray diffraction patterns. Roy C. Bowker and Harry J. McNicholas. J. Am. Leather Chem. Assn. <u>34</u> , 101 (1939)*		
(12) Stability of leather as indicated by different Procter and Searle values and by pH values. Roy C. Bowker and Everett L. Wallace, J. Am. Leather Chem. Assn. <u>34</u> , 551 (1939)*.		
(13) The probable error in the measurement of the tensile strength of heavy leather. John Beck, Jr., J. Am. Leather Chem. Assn. <u>32</u> , 4 (1937)*.		
(14) The soluble decomposition products in aged vegetable-tanned leathers. Joseph R. Kanagy. J. Research NBS <u>17</u> , 247 (1936) J. Am. Leather Chem. Assn. <u>32</u> , 12 (1937)*	RP909	5c
(15) Comments on the Procter and Searle method for determining the acidity of vegetable-tanned leather. Roy C. Bowker and Everett L. Wallace. J. Am. Leather Chem. Assn. <u>29</u> , 421 (1934).		
(16) The effects of atmospheric moisture on the physical properties of vegetable and chrome tanned calf leathers. W. D. Evans and C. L. Critchfield. BS. J. Research <u>11</u> , 147 (1933)	RP583	5c
(17) Some physical properties of fur-seal skins. R. C. Bowker. J. Tech. Assn. Fur Ind. <u>2</u> , 34 (1931).		



- (18) The influence of splitting on the strength and stretch of commercial leathers. R. C. Bowker and E. S. Olson. J. Am. Leather Chem. Assn. 25, 275 (1930)\*
- (19) Analyses of polishing wheel leather. R. C. Bowker. Abrasive Industry. (Jan. 1926)
- (20) Effects of oils, greases, and degree of tannage on the physical properties of russet harness leather. R. C. Bowker and J. B. Churchill. Tech. Pap. BS 13 (1919-20)      T160      5c
- (21) Analyses of different tannages of strap, harness and side leathers. L. M. Whitmore. J. Am. Leather Chem. Assn. 14, 567 (1919)
- (22) The effect of grease on the tensile strength of strap and harness leather. L. M. Whitmore, R. W. Hart and A. J. Beck. J. Am. Leather Chem. Assn. 14, 128 (1919)

See also items (57), (65), (67).

## 2. DEVELOPMENT OF TEST METHODS FOR LEATHER

- (23) Thermal-density coefficients and hydrometer correction tables for vegetable tanning extracts. Mary Grace Blair and Elmer L. Peffer. J. Research NBS 33, 341 (1944)      RP1612      5c
- (24) Some applications of statistical methods to sampling of leather. John Beek, Jr. and Robert B. Hobbs. J. Am. Leather Chem. Assn. 36, 190 (1941)\*
- (25) An improvement in the method for determining moisture in leather. Everett L. Wallace. J. Am. Leather Chem. Assn. 36, 7 (1941)\*
- (26) Note on the measurement of the permeability of leather to water vapor. Robert B. Hobbs. J. Am. Leather Chem. Assn. 36, 346 (1941)\*
- (27) Effect of speed of pulling jaws on the tensile strength and stretch of leather. Robert B. Hobbs. J. Research NBS 25, 207 (1940)      RP1321      5c  
J. Am. Leather Chem. Assn. 35, 715 (1940)\*

- (28) Report of the A. L. C. A. Committee on the determination of pH in tannery practice. Roy C. Bowker. J. Am. Leather Chem. Assn. 34, 280 (1939)\*
- (29) Laboratory apparatus and method for determining the resistance of sole leather to abrasion. E. L. Wallace. J. Am. Leather Chem. Assn. 32, 325 (1937)
- (30) Methods for measuring physical properties of leather and method of preparing samples of leather for analysis. W. E. Emley. J. Am. Leather Chem. Assn. 32, 418 (1937)\*
- (31) Apparatus for testing coated fabrics. R. C. Bowker. Rayon and Textile Monthly 28, 57 (25) (Jan. 1937)
- (32) Method for measuring the pH of leather using a simple glass-electrode assembly. Everett L. Wallace. J. Research NBS 15, 5 (1935)  
J. Am. Leather Chem. Assn. 30, 370 (1935)      RP805      5c
- (33) A comparison of the quinhydrone and hydrogen electrodes in solutions containing tannin. E. L. Wallace and John Beek, Jr. BS J. Research 4, 737 (1930)      RP176      OP
- (34) Sampling of leather for chemical analysis. R. C. Bowker and E. L. Wallace. J. Am. Leather Chem. Assn. 17, 217 (1922)\*
- (35) Laboratory wearing test to determine the relative wear resistance of sole leather at different depths throughout the thickness of a hide. R. W. Hart. Tech. Paper BS 13, (1919-20)      T166      OP

See also items (2), (3), (6), (9), (10), (11), (12), (13), (15), (57), (63), (72).

### 3. EFFECT OF ACID ON LEATHER

- (36) Influence of natural non-tannins on the deterioration of chestnut and quebracho leathers by sulfuric acid. Roy C. Bowker and Robert B. Hobbs. J. Am. Leather Chem. Assn. 35, 5 (1940)\*

	<u>Series</u>	<u>Price</u>
(37) The deterioration of leather by acid. R. C. Bowker. Stiasny Festschrift (1937). Eduard Roether Verlag, Darmstadt, Germany		
(38) Effect of acid on leather - a summary. Warren E. Emley. J. Am. Leather Chem. Assn. <u>30</u> , 621 (1935)*		
(39) Deterioration of vegetable-tanned leathers containing sulphuric acid and glucose. Everett L. Wallace and Joseph R. Kanagy. J. Research NBS <u>15</u> , 523 (1935) J. Am. Leather Chem. Assn. <u>30</u> , 614 (1935)	RP846	5c
(40) Influence of sulphonated cod-liver oil on the deterioration of vegetable-tanned leathers by sulphuric acid. Everett L. Wallace, Charles L. Critchfield and John Beek, Jr. J. Research NBS <u>15</u> , 73 (1935) J. Am. Leather Chem. Assn. <u>30</u> , 438 (1935)*.	RP811	5c
(41) Influence of some sulphur containing tanning materials on the deterioration of vegetable-tanned leathers by sulphuric acid. Everett L. Wallace, Joseph R. Kanagy and Charles L. Critchfield. J. Research NBS <u>15</u> , 369 (1935) J. Am. Leather Chem. Assn. <u>30</u> , 510 (1935)*	RP835	5c
(42) Effect of sulphuric acid on chrome-tanned leather. Everett L. Wallace, John Beek, Jr., and Charles L. Critchfield. J. Research NBS <u>14</u> , 771 (1935) J. Am. Leather Chem. Assn. <u>30</u> , 311 (1935)*	RP802	5c
(43) Influence of magnesium sulphate on the deterioration of vegetable-tanned leather by sulphuric acid. Roy C. Bowker, Everett L. Wallace and Joseph R. Kanagy. J. Research NBS <u>14</u> , 121 (1935) J. Am. Leather Chem. Assn. <u>30</u> , 93 (1935)*	RP761	5c
(44) The deterioration of vegetable-tanned leather by oxalic acid. R. C. Bowker and J. R. Kanagy. J. Am. Leather Chem. Assn. <u>30</u> , 26 (1935)*		
(45) Effect of temperature on the deterioration of leather containing sulphuric acid. R. C. Bowker and E. L. Wallace. J. Am. Leather Chem. Assn. <u>29</u> , 623 (1934)*		

- (46) Report of the Committee on the determination of acid in leather, 1934. R. C. Bowker, Chairman. J. Am. Leather Chem. Assn. 29, 403 (1934)
- (47) The influence of sodium chloride and magnesium sulphate on the hydrolysis of leather by sulphuric acid. E. L. Wallace and J. R. Kanagy. J. Am. Leather Chem. Assn. 28, 186 (1933)\*
- (48) The influence of pH on the deterioration of vegetable-tanned leather by sulphuric acid. R. C. Bowker and E. L. Wallace. BS J. Research 10, 559 (1933)      RP547      5c  
J. Am. Leather Chem. Assn. 28, 125 (1933)
- (49) The deterioration of leather by sulphuric acid as influenced by tanning with blends of chestnut and quebracho extracts. R. C. Bowker and C. L. Critchfield. J. Am. Leather Chem. Assn. 27, 158 (1932)\*
- (50) The addition of a definite quantity of sulphuric acid to leather. John Beek, Jr. J. Am. Leather Chem. Assn. 27, 79 (1932)\*
- (51) The effect of atmospheric moisture on the deterioration of commercial and quebracho tanned leathers containing sulphuric acid. R. C. Bowker and W. D. Evans. J. Am. Leather Chem. Assn. 27, 81 (1932)\*
- (52) The deterioration of chestnut and quebracho tanned leathers by sulphuric acid. R. C. Bowker. J. Am. Leather Chem. Assn. 26, 444 (1931)\*
- (53) The hydrolysis of chestnut and quebracho tanned leathers by sulphuric acid. E. L. Wallace. BS J. Research 7, 621 (1931).      RP362      5c  
J. Am. Leather Chem. Assn. 26, 545 (1931)\*
- (54) The influence of grease on the deterioration of chestnut and quebracho leathers by sulphuric acid. R. C. Bowker. J. Am. Leather Chem. Assn. 26, 667 (1931)\*



	<u>Series</u>	<u>Price</u>
(55) A study of the adsorption of sulphuric acid by leather. John Beek, Jr. BS J. Research <u>5</u> , 1109 (1930) Ind. Eng. Chem. <u>22</u> , 1373 (1930)	RP249	OP
(56) Progress report on the effects of acids on leather. R. C. Bowker. J. Am. Leather Chem. Assn. <u>23</u> , 82 (1928)*		
See also item (14).		
4. EFFECT OF MOISTURE, GASES, AND HEAT ON LEATHER		
(57) Effect of temperature and time on the "Weight Loss" of leather. J. R. Kanagy, A. M. Charles, J. Am. Leather Chem. Assn. <u>43</u> , 274 (1948)*		
(58) Accelerated aging of lace leather. Joseph R. Kanagy and Philip E. Tobias. J. Research NBS <u>29</u> , 51 (1942) J. Am. Leather Chem. Assn. <u>37</u> , 426 (1942)*	RP1483	5c
(59) Evolution of carbon dioxide and water from vegetable-tanned leathers at elevated temperatures. Joseph R. Kanagy. J. Research NBS <u>27</u> , 257 (1941) J. Am. Leather Chem. Assn. <u>36</u> , 609 (1941)*	RP1418	5c
(60) Effect of oxygen and moisture on the stability of leather at elevated temperatures. Joseph R. Kanagy. J. Research NBS <u>25</u> , 149 (1940) J. Am. Leather Chem. Assn. <u>35</u> , 632 (1940)*	RP1319	5c
(61) Accelerated aging of leather in the oxygen bomb at 100 degrees C. Joseph R. Kanagy. J. Research NBS <u>21</u> , 241 (1939) J. Am. Leather Chem. Assn. <u>33</u> , 565 (1938)*	RP1128	OP
(62) Influence of copper and iron salts on the behavior of leather in the oxygen bomb. Joseph R. Kanagy. J. Research NBS <u>20</u> , 849 (1938) J. Am. Leather Chem. Assn. <u>33</u> , 352 (1938)	RP1109	5c
(63) Behavior of leather in the oxygen bomb. Joseph R. Kanagy. J. Research NBS <u>18</u> , 713 (1937) J. Am. Leather Chem. Assn. <u>32</u> , 314 (1937)*	RP1004	5c

See also items (14), (16), (45), (51).

5. SOLE LEATHER

- (64) Variation in the quality ratio for tests of sole leather in service. R. B. Hobbs. J. Am. Leather Chem. Assn. 40, 348 (1945)\*
- (65) Wearing quality of some vegetable-tanned sole leathers. Robert B. Hobbs and Ruth A. Kronstadt. J. Research NBS 34, 33 (1945) RP1626 10c  
J. Am. Leather Chem. Assn. 40, 12 (1945)\*
- (66) Service tests of some oil-treated sole leathers. Robert B. Hobbs and Howard E. Bussey. Letter Circular LC739 (1943) LC739 Free  
J. Am. Leather Chem. Assn. 39, 109 (1944)\*  
Hide and Leather and Shoes 107, No. 3, p. 21, (Jan. 15, 1944)
- (67) The physical properties of sole leather. Dorothy Jordan Lloyd, R. C. Bowker, F. O'Flaherty, E. Norlin, J. Gordon Parker, and E. L. Wallace. J. Int. Soc. Leather Trades' Chemists 23, 461-480 (Aug. 1939)
- (68) Comparative wear of chrome-tanned, vegetable-tanned, and retanned sole leather. Roy C. Bowker and Warren E. Emley. J. Research NBS 15, 363 (1935) RP834 5c  
J. Am. Leather Chem. Assn. 30, 572 (1935)\*
- (69) Increasing the wear of sole leather. R. C. Bowker. Hide and Leather (Oct. 1925).
- (70) Comparative durability of chrome and vegetable-tanned sole leathers. R. C. Bowker and M. N. V. Geib. Tech. Pap. BS 19, 267 (1924-25) T286 OP
- (71) Durability of sole leather filled with sulphite cellulose extract. R. C. Bowker. Tech. Pap. BS 16, 495 (1921-22) T215 5c
- (72) An apparatus for measuring the relative wear of sole leathers, with results obtained with leather from different parts of a hide. R. W. Hart and R. C. Bowker. Tech. Pap. BS 13 (1919-20) T147 5c
- (73) Effects of glucose and salts on the wearing quality of sole leather. P. L. Wormeley, R. C. Bowker, R. W. Hart, and L. M. Whitmore. Tech. Pap. BS 12 (1919) T138 OP

See also items (6), (29), (35).

		<u>Series</u>	<u>Price</u>
6. COLLAGEN			
(74)	Chemistry of collagen. J. R. Kanagy NBS Circular C458 (1947)	C458	10c
(75)	The carbohydrate content of collagen. John Beek, Jr. J. Research NBS 27, 507 (1941) J. Am. Leather Chem. Assn. 36, 696 (1941)* J. Am. Chem. Soc. 63, 1483 (1941)	RP1438	5c
(76)	Combination of hydrochloric acid and sodium hydroxide with hide, tendon, and bone collagen. John Beek, Jr. J. Research NBS 21, 117 (1939)	RP1119	5c
(77)	Electrophoresis of collagen. John Beek, Jr., and Arnold M. Sookne. J. Research NBS 23, 271 (1939)	RP1230	5c
(78)	Amino-nitrogen contents of wool and collagen. Joseph R. Kanagy and Milton Harris. J. Research NBS 14, 563 (1935) Am. Dyestuff Reporter 24, No. 7, p. 182 (1935)	RP787	5c
(79)	Combining weight of collagen. John Beek, Jr. J. Research NBS 14, 217 (1935)	RP765	5c
(80)	A contribution relative to the structure of collagen. John Beek, Jr. BS J. Research 8, 549 (1932)	RP434	5c

See also items (3), (84).

## 7. SYNTHETIC AND MINERAL TANNAGES

(81)	Iron as a tanning agent. Joseph R. Kanagy and Ruth A. Kronstadt. J. Research NBS 31, 279 (1943) J. Am. Leather Chem. Assn. 38, 459 (1943)* Hide and Leather and Shoes 106, No. 25, p. 29. (Dec. 11, 1943)	RP1566	5c
(82)	Action of sodium sulphate in synthetic tanning materials. E. Wolesensky. Tech. Pap. BS 20, 529 (1925-26)	T317	10c
(83)	Analysis of synthetic tanning materials. E. Wolesensky. Tech. Pap. BS 20, 519 (1925-26)	T316	5c

	<u>Series</u>	<u>Price</u>
(84) Behavior of synthetic tanning materials toward hide substance. E. Wolessensky. Tech. Pa. BS <u>20</u> , 275 (1925-26)	T309	5c
(85) Investigation of synthetic tanning materials. E. Wolessensky. Tech Pap. BS <u>20</u> , 1 (1925-26)	T302	15c
See also items (16), (42), (68), (70), (71), (96).		
8. GENERAL INFORMATION ON LEATHER AND RELATED MATERIALS		
(86) Development of a fungicidal dressing for leather. J. R. Kanagy, A. M. Charles, E. Abrams. J. Am. Leather Chem. Assn. <u>43</u> , 14 (1948)*		
(87) European footwear sizes. R. B. Hobbs. NBS Letter Circular LC899 (1948)	LC899	Free NBS
(88) Furs: general information. E. R. Hosterman. NBS Letter Circular LC888 (1948)	LC888	Free NBS
(89) The leather industry in China. Yu-Chih Wang. Hide and leather and shoes <u>114</u> , No. 2, p. 15 (July 12, 1947)*		
(90) Conservation of leather shoes. R. B. Hobbs. NBS Letter Circular LC719 (1943)	LC719	Free NBS
(91) National Bureau of Standards experimental tannery. Roy C. Bowker. Hide and Leather and Shoes <u>97</u> , No. 23 (June 1939)		
(92) Shoe constructions. R. C. Bowker. NBS Circular C419 (1938)	C419	10c
(93) Analysis of salt used for curing skins. R. C. Bowker and John Beek, Jr. J. Am. Leather Chem. Assn. <u>26</u> , 312 (1931)*		
(94) The supply of chestnut wood extract for tanning purposes. R. C. Bowker. Hide and leather (Dec. 20, 1930)		
(95) Cleaning of fur and leather garments. M. H. Goldman and C. C. Hubbard. Tech. Pap. BS <u>22</u> , 183 (1927-28)	T360	OP



		<u>Series</u>	<u>Price</u>
(96)	Use of sulphite cellulose extract as a tanning material. E. L. Wallace and R. C. Bowker. Tech. Pap. BS <u>21</u> , 309 (1926-27)	T339	OP
(97)	Polishing leather for cutlery. R. C. Bowker. The American cutler. (Feb. 1925)		
(98)	Organ and piano leathers. R. C. Bowker. The leather manufacturer <u>31</u> , 259 (1920)		
(99)	Area measurement of leather. F. J. Schlink. Tech. Pap. BS <u>13</u> (1919-20)	T153	OP
(100)	The work of the Bureau of Standards in leather. P. L. Wormeley. J. Am. Leather Chem. Assn. <u>13</u> , 367 (1918)		

#### 9. FEDERAL SPECIFICATIONS FOR LEATHER AND LEATHER PRODUCTS

These specifications deal with leather, leather products, or materials used for treating leather. Most of them were prepared by the Technical Committee on Leather and Leather Products of the Federal Specifications Executive Committee.

	<u>Title</u>	<u>Designation</u>	<u>Price</u>
(101)	Aprons; leather, blacksmiths'	KK-A-606a	5c
(102)	Bags; hand, leather	KK-B-50a	5c
(103)	Belting; flat, leather, vegetable-tanned	KK-B-201b	5c
(104)	Belting; round, leather, vegetable-tanned, smooth	KK-B-211b	5c
(105)	Cases; brief, leather	KK-C-121b	5c
(106)	Dressing; leather, transmission-belt	TT-D-636	5c
(107)	Envelopes; leather	KK-E-561	5c
(108)	Holsters; pistol, leather	KK-H-566a	5c
(109)	Leather and leather products; general specifications (methods of sampling, inspection, and tests)	KK-L-311	10c
(110)	Leather; bag and case	KK-L-154	5c

		<u>Designation</u>	<u>Price</u>
(111)	Leather dressing; mildew preventive	O-L-164	5c
(112)	Leather; harness, black and russet, (vegetable-tanned)	KK-L-171b	5c
(113)	Leather; hydraulic-packing, mineral- tanned	KK-L-177a	5c
(114)	Leather; hydraulic-packing, vegetable- tanned	KK-L-181a	5c
(115)	Leather; lace	KK-L-201b	5c
(116)	Leather; packing, chrome-vegetable retanned	KK-L-231	5c
(117)	Leather; rigging	KK-L-241b	5c
(118)	Leather; sole (cut, outer, and top-lift), vegetable-tanned, factory	KK-L-261c	5c
(119)	Leather; strap, black or russet	KK-L-271b	5c
(120)	Leather; upholstery	KK-L-291b	5c
(121)	Palms; sewing (sailmakers' and saddlers')	KK-P-91	5c
(122)	Polish, shoe; paste	P-P-567	5c
(123)	Satchels; leather, physicians'	KK-S-151a	5c
(124)	Skins; chamois	KK-S-416a	5c
(125)	Soap; saddle	P-S-609	5c
(126)	Strops, razor; leather	KK-S-756	5c
(127)	Welting; leather, shoe	KK-W-231	10c

See also item (5)